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Zacher et al.

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(54) **DISABLING PROHIBITED CONTENT AND IDENTIFYING REPEAT OFFENDERS IN SERVICE PROVIDER STORAGE SYSTEMS**

(56) **References Cited**

U.S. PATENT DOCUMENTS

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6,684,254 B1 1/2004 Dutta
7,020,774 B1 * 3/2006 Cornuejols G06Q 20/00
705/67

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(Continued)

FOREIGN PATENT DOCUMENTS

WO 2010031413 A1 3/2010

OTHER PUBLICATIONS

"Content Blocking", Retrieved Date: Jan. 17, 2013, Available at:
<http://help.opera.com/Mac/11.60/en/contentblock.html>.

(Continued)

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(58) **Field of Classification Search**

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ABSTRACT

Objects in a shared storage system can be marked as including prohibited content. Incidents that result in objects being so marked can be stored in an incident history associated with a user responsible for those objects. The incident history can be processed to identify repeat offenders and modify access privileges of those users. However, when objects are shared by one user with another user, prohibited content is blocked from being shared, while the remainder of the shared objects can be accessed by the other user. Functions that allow sharing of content are implemented so as prevent sharing of prohibited content with another user, while allowing other content to be shared. If a group of files or objects is shared, then the presence of prohibited content in one object in the group results in that prohibited content not being shared, but the remaining files or objects are still shared.

20 Claims, 7 Drawing Sheets

